

**PROJECT: Inner Loop East Reconstruction Project
Alternative 1- Construction Costs
PIN 4940.T7**

May 2013

DESCRIPTION	AMOUNT
<u>Pavement Costs</u>	
Full Depth Pavement Reconstruction (2015)	\$19,372,640
<u>Traffic Signal Costs</u>	
New Signal installation (2015)	\$1,082,736
Total Construction Cost (2015)	\$20,455,376
<u>Construction Inspection</u>	
Pavement Reconstruction	\$2,905,896
Signal Installation	\$162,410.39
Total Project Cost (2015)	\$23,523,682
SAY	<u>\$23,600,000</u>

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Full Depth Reconstruction					
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	40000	CY	\$18.00	\$720,000.00
203.03	EMBANKMENT IN PLACE	120000	CY	\$20.00	\$2,400,000.00
206.02	TRENCH AND CULVERT EXCAVATION	2100	CY	\$20.00	\$42,000.00
206.03	CONDUIT EXCAVATION AND BACKFILL INCL. RESTORATION	10000	LF	\$10.00	\$100,000.00
206.04	TRENCH AND CULVERT EXCAVATION - O.G.	3150	CY	\$20.00	\$63,000.00
207.21	GEOTEXTILE SEPARATION	49500	SY	\$2.00	\$99,000.00
304.12	SUBBASE COURSE, TYPE 2	18500	CY	\$40.00	\$740,000.00
402.098202	9.5 F2 TOP COURSE HMA, 80 SERIES COMPACTION	4450	TON	\$110.00	\$489,500.00
402.098212	PLANT PRODUCTION QUALITY ADJUSTMENT TO 402.098202	223	QU	\$70.00	\$15,610.00
402.198902	19 F9 BINDER COURSE HMA, 80 SERIES COMPACTION	5700	TON	\$105.00	\$598,500.00
402.198912	PLANT PRODUCTION QUALITY ADJUSTMENT TO 402.198902	285	QU	\$70.00	\$19,950.00
402.378902	37.5 F9 BASE COURSE HMA, 80 SERIES COMPACTION	16500	TON	\$100.00	\$1,650,000.00
402.378912	PLANT PRODUCTION QUALITY ADJUSTMENT TO 402.378902	825	QU	\$70.00	\$57,750.00
407.0102	DILUTED TACK COAT	8900	GAL	\$7.00	\$62,300.00
520.50140008	SAW CUTTING, ASPHALT PAVEMENT, ASPHALT SURFACE COURSE, CONCRETE PAVEMENT OR ASPHALT OVERLAY ON CONCRETE PAVEMENT	900	LF	\$6.00	\$5,400.00
500.XX	STRUCTURE REMOVAL - EAST AVENUE BRIDGE	1	LS	\$326,000.00	\$326,000.00
500.XX	STRUCTURE REMOVAL - BROAD STREET BRIDGE	1	LS	\$423,000.00	\$423,000.00
500.XX	STRUCTURE REMOVAL - STEAM PIPE BRIDGE	1	LS	\$34,000.00	\$34,000.00
500.XX	STRUCTURE REMOVAL - MONROE AVENUE BRIDGE	1	LS	\$297,000.00	\$297,000.00
580.01	REMOVAL OF STRUCTURAL CONCRETE	1650	CY	\$800.00	\$1,320,000.00
587.02	BRIDGE RAILING REMOVAL AND STORAGE	8800	LF	\$40.00	\$352,000.00
603.98100804	POLYVINYL CHLORIDE (PVC) SEWER PIPE & FITTINGS 8" DIAMETER	2150	LF	\$20.00	\$43,000.00
604.070402	ALTERING DRAINAGE STRUCTURES, LEACHING BASINS AND MANHOLES	60	EA	\$700.00	\$42,000.00
604.500401	SPECIAL DRAINAGE STRUCTURE	1075	LF	\$250.00	\$268,750.00
605.0901	UNDERDRAIN FILTER TYPE 1	2100	CY	\$35.00	\$73,500.00
605.1502	PERFORATED CORRUGATED POLYETHYLENE UNDERDRAIN TUBING, 6 INCH DIAMETER	25000	LF	\$7.50	\$187,500.00
606.73	REMOVING AND DISPOING OF BOX BEAM GUIDERAIL	8800	LF	\$3.50	\$30,800.00
608.0101	CONCRETE SIDEWALKS AND DRIVEWAYS	1750	CY	\$380.00	\$665,000.00
608.020102	HOT MIX ASPHALT (HMA) SIDEWALKS, DRIVEWAYS AND BICYCLE PATHS, AND VEGETATION CONTROL STRIPS	100	TON	\$150.00	\$15,000.00
608.21	EMBEDDED DETECTABLE WARNING UNITS	110	SY	\$300.00	\$33,000.00

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609.0251	GRANITE CURB (AS DETAILED) - TYPE I	25000	LF	\$30.00	\$750,000.00
610.1101	MULCH FOR PLANTING TYPE A, B & D - WOOD CHIPS AND SHREDDED BARK	225	CY	\$50.00	\$11,250.00
610.1403	TOPSOIL - LAWNS	3100	CY	\$45.00	\$139,500.00
610.1602	TURF ESTABLISHMENT - LAWNS	28000	SY	\$1.50	\$42,000.00
611.0151	PLANTING - MINOR DECIDUOUS TREES - 2 INCH CALIPER BALL & BURLAP, FIELD POTTED OR FIELD BOXE	400	EA	\$350.00	\$140,000.00
645.5102	GROUND-MOUNTED SIGN PANELS LESS THAN OR EQUAL TO 30 SF WITH Z-BARS	1000	SF	\$25.00	\$25,000.00
645.81	TYPE A SIGN POSTS	100	EA	\$100.00	\$10,000.00
645.85	POLE MOUNTED SIGN SUPPORT SYSTEM (BAND MOUNTED)	150	EA	\$100.00	\$15,000.00
647.61	REMOVAL OF SIGNS - SIZE A (0 - 10 SQUARE FEET)REM AND DISPOSE GROUND MOUNTED TYPE A SIGN SUPPORT(S), FDNS AND ANY ATTACHED SIGNS - SIZE I (UNDER 30 SQUARE FEET)	300	EA	\$25.00	\$7,500.00
655.1103	WELDED FRAME AND RETICULINE GRATE 3	215	EA	\$550.00	\$118,250.00
655.1202	MANHOLE FRAME AND COVER	60	EA	\$750.00	\$45,000.00
663.33	ADJUST EXISTING VALVE BOX ELEVATION	100	EA	\$250.00	\$25,000.00
670.0104	FOUNDATION FOR LIGHT STANDARDS, 4 FEET LONG	100	EA	\$1,000.00	\$100,000.00
670.2602	RIGID PLASTIC CONDUIT, 2"	10000	LF	\$3.00	\$30,000.00
670.xx	NEW LIGHTPOLE AND LUMINAIRE	100	EA	\$2,000.00	\$200,000.00
670.300101MO	INSTALL LIGHTING PULLBOX FRAME AND COVER (CITY OF ROCHESTER) - 2' X 2' SQUARE	100	EA	\$125.00	\$12,500.00
670.81	REMOVE AND DISPOSE OF LAMPPOST ASSEMBLY	295	EA	\$175.00	\$51,625.00
670.82	REMOVE LAMPPOST FOUNDATION	295	EA	\$185.00	\$54,575.00
685.11	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MILS	24000	LF	\$0.75	\$18,000.00
685.12	YELLOW EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MILS	19000	LF	\$0.75	\$14,250.00
688.01	WHITE PREFORMED REFLECTORIZED PAVEMENT STRIPES	4200	LF	\$2.00	\$8,400.00

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ITEM #	DESCRIPTION	QUANTITY	PAY UNIT	UNIT PRICE	AMOUNT
900.xx	WATERMAIN WORK	1	LS	\$750,000.00	\$750,000.00
	SUBTOTAL (2013 Dollars)				\$13,741,410.00
	MPT (5%), Survey Operations(4%), Mobilization (4%)	13%	LS	\$1,786,383.30	\$1,786,383.30
	Contingency	20%	LS	\$2,748,282.00	\$2,748,282.00
	TOTAL CONSTRUCTION COST (2013)				\$18,276,075.30
	INFLATION (@3%/YEAR)(2015)	6%	LS	\$1,096,564.52	\$1,096,564.52
	TOTAL CONSTRUCTION COST (2015)				\$19,372,639.82
	Design Fees	0%	LS	\$0.00	\$0.00
	Construction Inspection Fees	15%	LS	\$2,905,895.97	\$2,905,895.97
	TOTAL PROJECT COST (2015)				\$22,278,535.79

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ITEM #	DESCRIPTION	QUANTITY	PAY UNIT	UNIT PRICE	AMOUNT
Traffic Signals (New)					
206.03	CONDUIT EXCAVATION AND BACKFILL INCLUDING SURFACE RESTORATION	2030	LF	\$10.00	\$20,300.00
680.10020001	POWDER COATING TRAFFIC SIGNAL POLE - MAST ARM	4	EA	\$1,750.00	\$7,000.00
680.5001	POLE EXCAVATION AND CONCRETE FOUNDATION	14	CY	\$900.00	\$12,960.00
680.5002	CONCRETE BASE FOR CONTROLLER CABINET	1	EA	\$1,600.00	\$1,600.00
680.510301	PULLBOX-CIRCULAR, 24 INCH DIAMETER, REINFORCED CONCRETE	7	EA	\$1,100.00	\$7,700.00
680.510401	PULLBOX-CIRCULAR, 30 INCH DIAMETER, REINFORCED CONCRETE	5	EA	\$1,250.00	\$6,250.00
680.520106	CONDUIT, METAL STEEL, ZINC COATED, 2"	1000	LF	\$10.50	\$10,500.00
680.520108	CONDUIT, METAL STEEL, ZINC COATED, 3"	400	LF	\$15.00	\$6,000.00
680.520110	CONDUIT, METAL STEEL, ZINC COATED, 4"	20	LF	\$25.00	\$500.00
680.521603MO	CONDUIT, PVC SCHEDULE 80, 1" DIAMETER	80	LF	\$6.50	\$520.00
680.521610MO	CONDUIT, PVC SCHEDULE 80, 4" DIAMETER	1500	LF	\$8.50	\$12,750.00
680.54	INDUCTANCE LOOP INSTALLATION	1200	LF	\$9.75	\$11,700.00
680.71	SHIELDED LEAD-IN CABLE	2800	LF	\$1.75	\$4,900.00
680.72	INDUCTANCE LOOP WIRE	600	LF	\$0.65	\$390.00
680.730208	SIGNAL CABLE, 2 CONDUCTORS, 08 AWG	50	LF	\$4.75	\$237.50
680.730714	SIGNAL CABLE 7 CONDUCTORS, 14 AWG	1200	LF	\$4.50	\$5,400.00
680.730914	SIGNAL CABLE 9 CONDUCTORS, 14 AWG	2400	LF	\$5.25	\$12,600.00
680.79000001	REMOVE TRAFFIC SIGNAL EQUIPMENT	1	LS	\$10,000.00	\$10,000.00
680.802708MO	INSTALL ACTUATED 8 PHASE GROUND MOUNTED TRAFFIC SIGNAL CABINET AND EQUIP. (FURNISHED BY COUNTY)	1	EA	\$2,000.00	\$2,000.00
680.809908MO	ACTUATED 8 PHASE GROUND MOUNTED TRAFFIC SIGNAL CABINET AND EQUIP. (PURCHASED FROM COUNTY)	1	EA	\$3,750.00	\$3,750.00
680.810121MO	TRAFFIC SIGNAL MODULE - 12" DIA., RED BALL, LED	8	EA	\$90.00	\$720.00
680.810123MO	TRAFFIC SIGNAL MODULE - 12" DIA., YELLOW BALL, LED	8	EA	\$115.00	\$920.00
680.810125MO	TRAFFIC SIGNAL MODULE - 12" DIA., GREEN BALL, LED	8	EA	\$125.00	\$1,000.00
680.810128MO	TRAFFIC SIGNAL MODULE - 12" DIA., BIMODAL YELLOW/GREEN ARROW, LED	4	EA	\$175.00	\$700.00
680.810308	INSTALL BALL/ ARROW LED TRAFFIC SIGNAL MODULE	28	EA	\$60.00	\$1,680.00
680.810601	TRAFFIC SIGNAL SECTION - POLYCARBONATE, TYPE I, 12 INCH	28	EA	\$225.00	\$6,300.00
680.8111	TRAFFIC SIGNAL BRACKET ASSEMBLY - 1 WAY	8	EA	\$275.00	\$2,200.00
680.813104	INSTALL LED PEDESTRIAN SIGNAL MODULE	8	EA	\$60.00	\$480.00
680.813109	PEDESTRIAN SIGNAL SECTION - POLYCARBONATE, TYPE I - FOR 16 INCH BY 18 INCH LED MODULE	8	EA	\$375.00	\$3,000.00

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680.8141	PEDESTRIAN SIGNAL BRACKET MOUNT ASSEMBLY	8	EA	\$200.00	\$1,600.00
680.820030MO	TRAFFIC SIGNAL POLE MAST ARM COMBINATION ANCHOR BASE (30')	4	EA	\$4,250.00	\$17,000.00
680.8205	OVERHEAD SIGN ASSEMBLY, TYPE E	8	EA	\$600.00	\$4,800.00
680.821618MO	16"X18" PED. SIGNAL - PERSON (FULL) HAND (FULL) 2 DIGIT COUNTDOWN TIMER MODULE - TYPE A UNITS	8	EA	\$350.00	\$2,800.00
680.8225	PEDESTRIAN PUSHBUTTON AND SIGN - WITHOUT POST	8	EA	\$225.00	\$1,800.00
680.854000MO	TRAFFIC SIGNAL MAST ARM, 40 FEET ARM LENGTH	4	EA	\$2,000.00	\$8,000.00
680.995101MO	FIBER-OPTIC CABLE (PURCHASED FROM COUNTY)	750	LF	\$3.50	\$2,625.00
680.996101MO	INSTALL FIBER-OPTIC CABLE (FURNISHED)	750	LF	\$5.00	\$3,750.00
SUBTOTAL (2013 Dollars) (Per Signal)					\$196,432.50
	MPT (5%), Survey Operations(1%), Mobilization	10%	LS	\$19,643.25	\$19,643.25
	Contingency	20%	LS	\$39,286.50	\$39,286.50
CONSTRUCTION COST (2013) (Per Signal)					\$255,362.25
	<i>Number of Signals</i>	4			
TOTAL CONSTRUCTION COST (2013)					\$1,021,449.00
	INFLATION (@3%/YEAR)(2015)	6%	LS	\$61,286.94	\$61,286.94
TOTAL CONSTRUCTION COST (2015)					\$1,082,735.94
	Design Fees	0%	LS	\$0.00	\$0.00
	Construction Inspection Fees	15%	LS	\$162,410.39	\$162,410.39
TOTAL PROJECT COST (2015)					\$1,245,146.33